

REMARKS

Status of the Claims

After entry of the instant amendment, claims 1-4, 6-17, 20 and 21 are now pending in the present application. Claims 1, 7, 13, 14 and 16 are independent. Claims 11-17 stand withdrawn, as being drawn to nonelected subject matter.

Claim 19 has been cancelled without prejudice or disclaimer of the subject matter contained therein. Claims 1, 2, 4, 6-8, 20 and 21 have been amended to make the claim language more clear. Support for the amendments made to the claims can at least be found at page 2, paragraph [0006]; page 3, paragraph [0014]; page 14, paragraph [0049]; page 15, paragraphs [0050] and [0051]; page 17, paragraph [0059]; page 19 to page 20, paragraph [0067]; and Figures 11(a), 11(b), 12(b), 20(a), and 20(b). Thus, no new matter has been added by way of amendment to the claims.

Reconsideration of this application, as amended, is respectfully requested.

Information Disclosure Citations

The Examiner has not provided Applicants with an initialed copy of the PTO-SB08 form filed with the Information Disclosure Statement filed May 10, 2010. An initialed copy thereof is respectfully requested from the Examiner in the next Office Action.

Drawings

Since no objection has been received, Applicants assume that the drawings are acceptable and that no further action is necessary. Confirmation thereof in the next Office Action is respectfully requested.

Examiner Interview

Applicants wish to thank the Examiner for the courtesies extended to Applicants' representative during the personal interview which was conducted on October 25, 2010. During the interview, Applicants' representative sought to clarify what Applicants view as the inventive subject matter disclosed in the present application. Applicants' representative relied on the Drawings to further explain certain aspects of the claimed invention.

The Examiner suggested that Applicants include an explanation of the invention, as discussed during the interview, making reference to the Drawings using the specific terms recited in the claims, and explaining the transformation of the thick-walled part to a sharp edge using at least Figures 11(a) and 11(b), as illustrations. Further, the Examiner suggested that Applicants clarify the claim language to better distinguish the structure of the “fiber deposit layer” as it is before the pressing step (with a thick-walled part) from the structure after it has been pressed (without a thick-walled part).

Applicants have amended the claims in a manner consistent with the Examiner’s suggestions, and the claims, as amended, are believed to be in condition for allowance. Applicants are also providing a more detailed explanation of the claimed invention (below) relying on the Drawings.

Accordingly, reconsideration and allowance of the present application are respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 1-4, 6-10 and 19-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsuura, U.S. Patent Application Publication No. 2004/0069429 (hereinafter “Tsuura”). Claim 19 has been cancelled and its rejection is moot. The rejection of claims 1-4, 6-10, 20 and 21 is respectfully traversed.

Independent claims 1 and 7 recite methods for producing a fiber molded article having a casting cavity and a mating face with a sharp edge where the casting cavity and the mating face meet. Referring to Figures 10, 11(a) and 11(b), the fiber deposit layer 10 has a casting cavity 102 and a flange 101 with an edge 103 where the casting cavity 102 and flange 101 meet. The fiber deposit layer has a thick-walled part at or near the edge 103 shown in Figure 11(a). In the claimed methods the fiber deposit layer 10 is pressed at the thick-walled part at edge 103 in Figure 11(a) to form a sharp edge 103 in Figure 11(b) thereby producing the fiber molded article. The sharp edge 103 in Figure 11(b) is located where the casting cavity 102 and the flange 101 meet and the flange 101 acts as a mating face (element 111 in Figure 12(b)) when the fiber molded article is joined at its sharp edge (element 113 in Figure 12(b)) with a mating face of a second fiber molded article.

As explained at the top of page 6 of the Specification, Figure 23 (see below) illustrates the problem associated when joining fiber molded articles produced using conventional techniques. As shown in Figure 23, because the edge 113 prepared by conventional methods is not sharp, when two fiber molded articles prepared by conventional methods are joined together there is gap between the two articles. In contrast, when two fiber molded articles produced by claimed methods are joined together, as illustrated in Figure 12(b) (below), the edges 113 are sharp and there is little or no gap between the joined fiber molded articles.

Fig.23

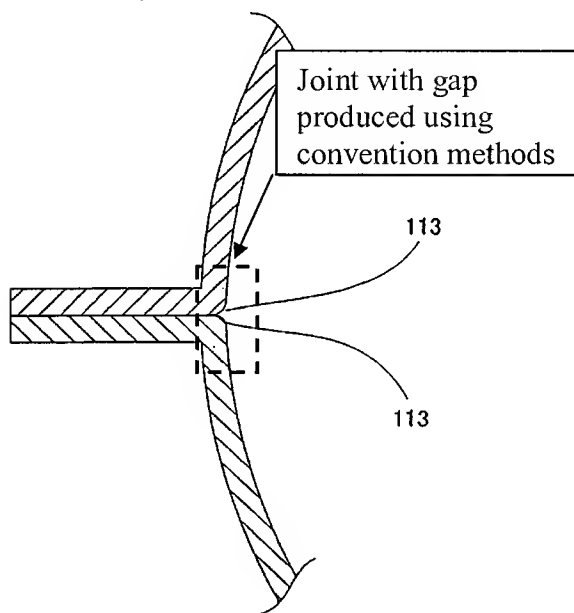
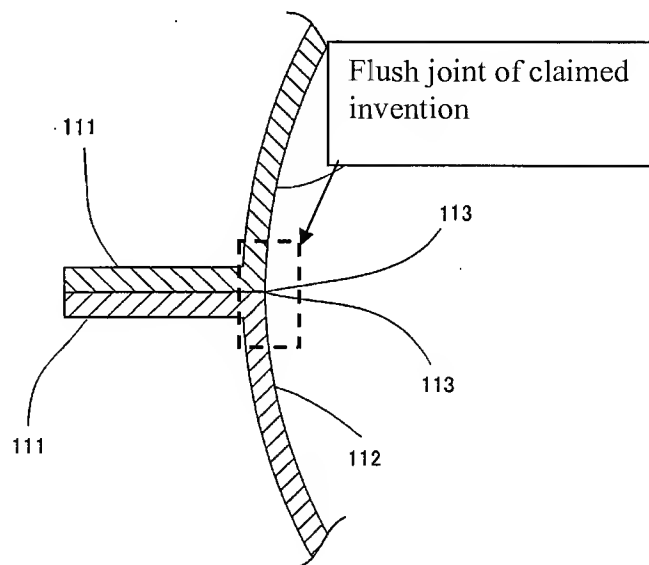


Fig.12(b)



In the claimed invention, the fiber deposit layer (*i.e.*, element 10 in Figure 10) is prepared by a papermaking process and the fiber deposit layer comprises a fiber material. The thick-walled part (*i.e.*, element 103 in Figure 11(a)) in the fiber deposit layer 10 is formed in a recess having a depth of 1 to 20 mm of a papermaking mold used in the papermaking process. For example, in Figure 6, the papermaking mold 30 has a recess 310 that permits the thick-walled part 104 to be formed, as recited in the claims.

The claimed methods can be better understood by reference to Figures 4 and 5 below showing one possible method.

Fig.4

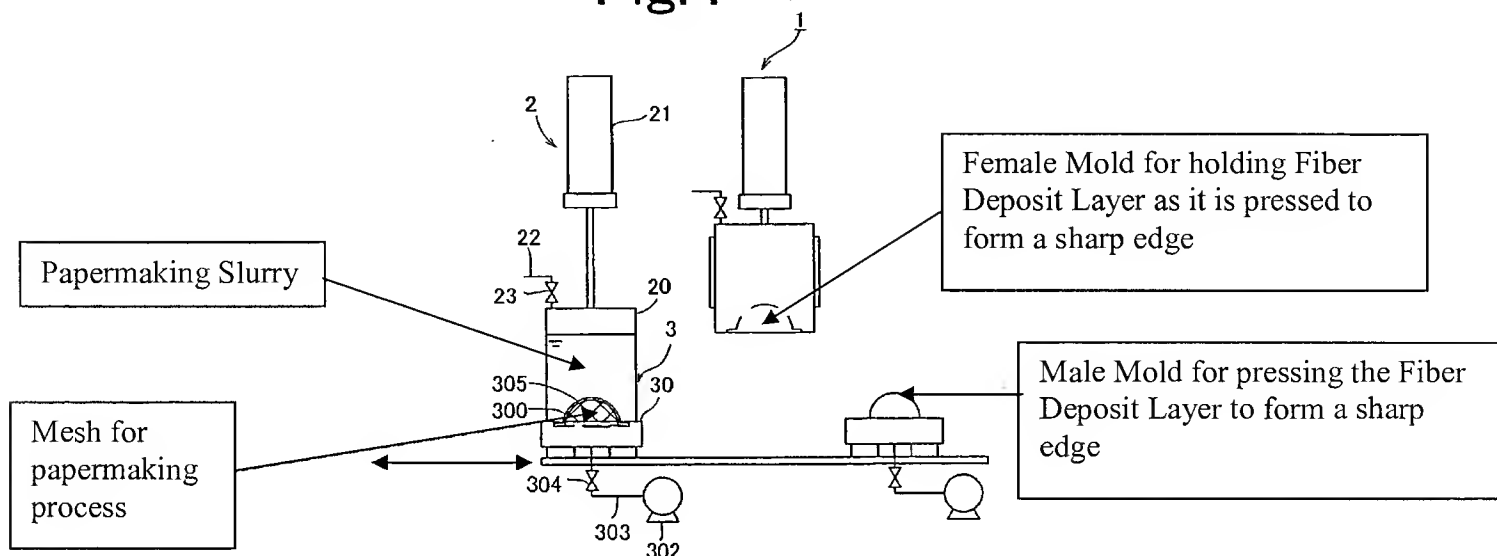
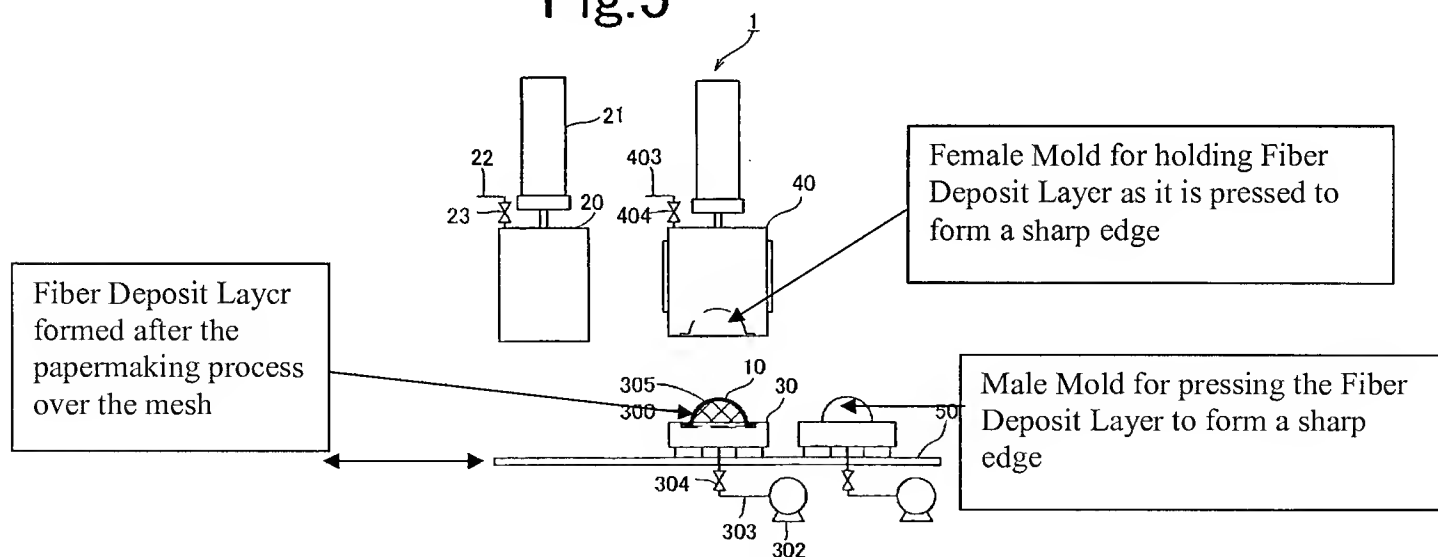
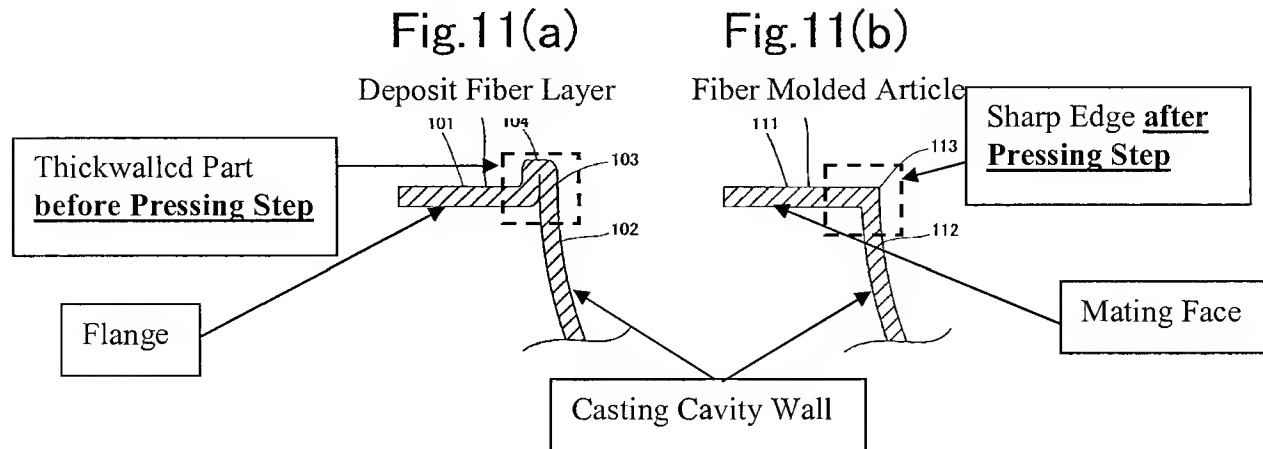


Fig.5



A fiber deposit layer is prepared by applying a papermaking slurry over a papermaking mold (*i.e.*, with a mesh). A fiber deposit layer produced by the papermaking process is positioned under a female mold and the fiber deposit layer is transferred to the female mold. The female mold containing the fiber deposit layer is pressed to the male mold.

After the papermaking process, the fiber deposit layer has a thickwalled portion at or near an edge located where the casting cavity and the flange meet.



As can be seen in Figures 11(a) and 11(b) above, a fiber deposit layer having a thick-walled part at or near an edge is formed by a papermaking process. As recited in the claims the fiber deposit layer comprises a casting cavity and a flange, the edge is located where the casting cavity and the flange meet. The thick-walled part at or near the edge is pressed to form a sharp edge thereby producing the fiber molded article. The flange acts as a mating face when the fiber molded article is joined with a mating face of a second fiber molded article.

At pages 2-3 of the Office Action, it is alleged that **Tsuura** teaches a “formed article has a sharp edge that has a thick walled part, as for example shown in Figure 1 (entire document and Figures 1-4).” Further at page 3, it is alleged that **Tsuura** teaches “a papermaking mold in the method of making the article. The mold includes a pair of splits that are joined together wherein the slurry is placed. The mold is designed to create a thick walled part as shown in the resulting product of Figure 1.” Applicants respectfully disagree with these allegations.

Applicants respectfully point out that **Tsuura** teaches away from making molded elements that have thicker parts, instead teaching molded elements having a uniform thickness. Thus, at page 2, in paragraph [0025], where **Tsuura** discusses the preferred length of the inorganic fiber in his molded elements, **Tsuura** teaches that “[w]here the inorganic fiber has too long an average length, the slurry tends to fail to produce a molded article with uniform wall thickness and may have difficulty in producing a hollow molded element.” Thus, **Tsuura’s** intent is to produce a molded

element having a uniform wall thickness, and to achieve his goal, **Tsuura** requires use of an inorganic fiber within a specified range (*e.g.*, 0.2 to 10 mm).

Further at page 4 in paragraph [0052], **Tsuura** teaches “the solid content of the slurry is accumulated on the screen covering the cavity wall to build up a fiber layer with uniform thickness... the slurry in the cavity is uniform in concentration to deposit a fiber layer on the screen uniformly” (emphasis added). Thus, **Tsuura** teaches away from a mold designed to create a thick walled part.

In view of the claim amendments and the discussion above, Applicants respectfully request that the rejection of claims 1-4, 6-10, 20 and 21 as being unpatentable over **Tsuura** be withdrawn.

CONCLUSION

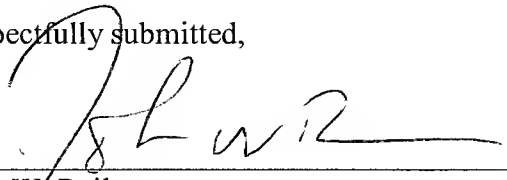
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Stephanie A. Wardwell, Ph.D., Registration No. 48,025 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: DEC 13 2010

Respectfully submitted,


By _____

John W. Bailey

Registration No.: 32881

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road, Suite 100 East

P.O. Box 747

Falls Church, VA 22040-0747

703-205-8000